

# Colorectal Cancer:

## The Importance of Early Detection

**AT-A-GLANCE**  
1998



Photo courtesy of the Winship Cancer Center of Emory University

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*"We now have clearer insight into the natural history of colorectal cancer, better understanding of its biologic features, and clinical skills with which to intervene and make a difference for many people. Colorectal cancer screening has come of age."*

Sidney J. Winawer, MD, Memorial Sloan-Kettering Cancer Center, New York  
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**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES**  
Centers for Disease Control and Prevention



## Colorectal Cancer

### How Common Is Colorectal Cancer?

Colorectal cancer is the second leading cause of cancer-related death in the United States. In 1998, there will be an estimated 56,500 deaths from colorectal cancer. When skin cancer is excluded, colorectal cancer is the third most commonly diagnosed cancer for both men and women in the United States. Approximately 131,600 new cases will be diagnosed during 1998. For men, colorectal cancer follows prostate and lung cancers in frequency; for women, it follows breast and lung cancers.

### Who Is at Risk?

A person begins to have an increased risk of developing colorectal cancer after the age of 40, and

this risk generally increases with advancing age. Men are more likely than women to develop colorectal cancer. African Americans are more likely than whites to be diagnosed with this disease and are more likely to die of it.

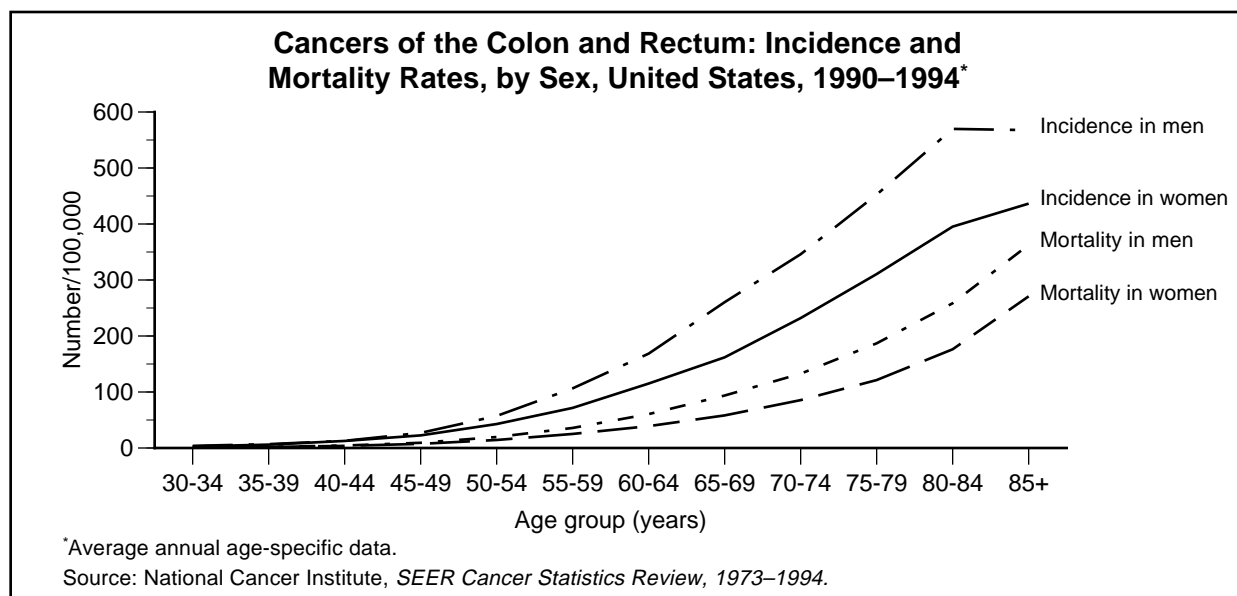
Other major risk factors include having inflammatory bowel disease, a family history of colorectal cancer or colorectal polyps, and certain hereditary syndromes. Additional conditions contributing to increased risk for colorectal cancer include a history of colorectal cancer or polyps or of ovarian, endometrial, or breast cancers. Lack of regular physical activity, low fruit and vegetable intake, a diet low in fiber and high in fat, obesity, and alcohol consumption are possible additional risk factors.

### Early Detection—A Key to Survival

Survival is greatly enhanced when colorectal cancer is detected early and appropriate treatment provided. Death rates vary significantly by stage at diagnosis. When colorectal cancer is diagnosed at a localized stage, death rates are low: only 8% of patients diagnosed at this stage will die within 5 years. Unfortunately, only 37% of colorectal cancers are diagnosed at this localized stage. Once the disease has progressed to a regional stage, 36% of patients will die within 5 years. When the disease is diagnosed at an advanced stage (has spread to distant sites), death rates are high: 93% of patients will die within

5 years. For African Americans, 5-year relative survival rates are lower than those for whites, and a smaller proportion of cases are diagnosed at an early stage.

Cancerous and precancerous polyps may be present in the colon for years before invasive cancer develops. Colorectal cancer can actually be prevented by removing precancerous polyps. Reducing the number of deaths from colorectal cancer depends on detecting and removing precancerous and cancerous colorectal polyps, as well as detecting and treating invasive cancer in its earliest stages.



## Types of Screening

Two currently available tests have been shown to be beneficial in screening for colorectal cancer:

- **Fecal occult blood testing (FOBT)** is a chemical test for blood in a stool sample. A positive test can indicate bleeding from a precancerous growth or from colorectal cancer. A drawback of this test is that FOBT has the potential for false-positive and false-negative results. Studies have found that colorectal cancer screening by FOBT is beneficial. A randomized control trial in the United States showed a 33% reduction in colorectal cancer mortality in the group chosen to undergo annual screening by FOBT. Two European trials have also shown benefits from the use of FOBT for screening.
- **Flexible sigmoidoscopy** is the use of a hollow, lighted tube to visually inspect the wall of the rectum and the lower sections of the colon. The

60-centimeter flexible scope can detect about 65%–75% of polyps and 40%–65% of colorectal cancers.

Three other tests for colorectal cancer are commonly used in clinical practice, although no direct evidence, as yet, supports their efficacy in reducing morbidity and mortality. Colonoscopy can be used to visually inspect the entire colon and allows for the detection, removal, and biopsy of polyps during a single medical procedure. The double-contrast barium enema (DCBE) procedure uses barium sulfate, air, and X-ray technology for examining the interior wall of the colon. Colonoscopy and DCBE are also used as follow-up diagnostic tools when the results of another screening test are positive. Digital rectal examination (DRE) is the most commonly used screening test for colorectal cancer but can detect only those tumors within about 10 centimeters of the anus.

## Guidelines for Screening

Because of recent evidence that screening reduces deaths from colorectal cancer, new guidelines have been released recommending screening of all people at average risk beginning at age 50.

- **U.S. Preventive Services Task Force:** On the basis of a systematic and rigorous review of new data, this independent, expert advisory panel convened by the U.S. Public Health Service has concluded that sufficient evidence now exists to recommend colorectal cancer screening. The task force recommends that clinicians include colorectal cancer screening, using periodic flexible sigmoidoscopy and/or annual FOBT, in regular health examinations for all persons aged 50 and older.
- **American Cancer Society:** For persons aged 50 and older and at average risk for colorectal cancer, the American Cancer Society recommends screening by one of the two following methods: annual FOBT, along with flexible sigmoidoscopy every 5 years; or a total colon examination, either by colonoscopy every 10 years or DCBE every 5–10 years. A DRE should be conducted along with sigmoidoscopy or total colon examination. The organization provides separate guidelines for screening persons at increased risk.
- **Interdisciplinary Task Force:** An interdisciplinary task force, originally convened by the federal Agency for Health Care Policy and Research and

supported by five major gastroenterological societies, has released guidelines similar to those established by the American Cancer Society. Extensive documentation and rationale accompany these recommendations for colorectal cancer screening.

These three guidelines all emphasize the health benefits derived from colorectal cancer screening—finding and removing precancerous and cancerous polyps and thus preventing the development of cancer, or detecting cancer at an early, more treatable stage.

## Underuse of Screening

Results from recent studies and the new guidelines highlight the need to increase screening for colorectal cancer. Currently, screening for colorectal cancer lags far behind screening for other cancers, perhaps because the effectiveness of colorectal cancer screening has only recently been documented. Findings from CDC's state-based Behavioral Risk Factor Surveillance System indicated that in 1995, only 38% of adults over age 50 had ever had a sigmoidoscopy for screening or diagnostic purposes, and 29% of respondents reported having had one within the past 5 years. In the 1992 National Health Interview Survey, 48% of adults aged 50 and over reported ever having had an FOBT, and 17% reported having had one for screening in the preceding year.

## CDC Program Activities

CDC is building coalitions to develop a national strategy to educate health care providers and the public about colorectal cancer screening guidelines and the availability of screening procedures. CDC is also supporting investigations to determine clinical and consumer barriers to screening.

- CDC is collaborating with the American Cancer Society in establishing a national coalition of public, private, and voluntary organizations to educate health care providers and the public about the importance of colorectal cancer screening. Partners include state health departments, professional digestive disease organizations (such as the American Digestive Health Foundation and the Digestive Disease National Coalition), medical societies, federal agencies, consumers, cancer survivors, managed care organizations, private industry, health educators, and the medical media.
- In 1997, CDC and the American Cancer Society hosted two National Colorectal Cancer Roundtables of potential partners to discuss strategies for identifying barriers to screening, assessing current public awareness of and interest in screening, and developing and disseminating health messages to promote screening.
- In 1997, CDC hosted two meetings for CDC staff, state health department representatives, and other partners to share current and future plans for colorectal cancer initiatives and to identify challenges and opportunities in developing state-based colorectal cancer efforts.
- CDC is providing support for two multiyear studies, one with Kaiser Permanente Medical Care Program of Northern California and another with the Imperial Cancer Research Fund in Great Britain, to determine patients' interest and participation in sigmoidoscopy screening.
- CDC is working with The HMO Group to validate self-reported history of colorectal cancer screening by comparing responses to a telephone survey to information recorded on medical charts for a sample of adults aged 50 and older.
- CDC is working with the American Cancer Society to plan a national survey of primary care physicians to determine their knowledge and attitudes about colorectal cancer screening and their perceptions of barriers to this screening.
- CDC is providing support for a 3-year program at the University of North Carolina Prevention Center to develop standards for performing and reporting results of sigmoidoscopies.

### Colorectal Cancer Screening Guidelines Available on the Internet:

U.S. Preventive Services Task Force  
<http://158.72.20.10/pubs/guidecps/default.htm>

American Cancer Society  
<http://www.cancer.org>

Interdisciplinary Task Force  
<http://www.gastro.org/colcancer>

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